Объединенный институт ядерных исследований
ЛАБОРАТОРИЯ ТЕОРЕТИЧЕСКОЙ ФИЗИКИ
им. Н. Н. Боголюбова

Семинар
"ТЕОРИЯ АДРОННОГО ВЕЩЕСТВА ПРИ ЭКСТРЕМАЛЬНЫХ УСЛОВИЯХ"

Руководители: Э.-М. Илгенфритц и О. В. Теряев

Семинар состоится
в понедельник 11 апреля в 16.00
в аудитории им. Д. И. Блохинцева (4 этаж)

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Competition and duality correspondence between chiral and superconducting channels in (2+1)-dimensional four-fermion models

I will explain the duality correspondence between fermion-antifermion and di-fermion interaction channels as established in two (2+1)-dimensional Gross-Neveu type models with a fermion number chemical potential μ and a chiral chemical potential μ_5. The role and influence of this property on the phase structure of the models are investigated. In particular, it is shown that the chemical potential μ_5 promotes the appearance of dynamical chiral symmetry breaking, whereas the chemical potential μ contributes to the emergence of superconductivity.

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